

Andover Public Schools
36R Bartlet Street
Andover, Massachusetts 01810

Long Range Technology Plan
FY2008 – FY2012

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EXECUTIVE SUMMARY

"We live in an increasingly complex and information and technology rich world. Information and technology skills are the 'new basics.' Being able to find and use information more effectively and efficiently is essential to the success of students of all ages - pre-K through adult." 1 "

The Andover Public Schools (APS) recognize that in the United States and the world, technology and telecommunications are revolutionizing the way we work, play, and communicate. John Naisbitt, in his book *Global Paradox*, pleads that we must prepare our students technologically to be leaders and participants during these transitional times. We recognize that the mobility of the workforce and general population will remain dominant influences in the world in which current APS students live. Today information is planned, designed, developed, transmitted, and managed in electronic form. In order for our students to become skilled, productive members of this global workforce, we need to build on and accelerate the use of technology in our schools.

Andover, Massachusetts is a town that owes its growth and dynamism largely to high technology. Many parents of Andover students work for companies and have job titles never heard of fifteen years ago. Students are urged by their parents to never stop learning and to acquire as many fundamentals during their formative educational years as possible in order to become flexible enough to survive in their future careers.

These same parents and students, in addition to other stakeholders, insist that there be substantive, sustained educational reform, especially in public schools. This reform, they insist, must include earlier and deeper exposure to technologies which must become "second nature" for young people going on to higher education, vocational training, or into the armed forces, and then on to their careers.

This plan sets forth aggressive goals for integration of technology into the core competencies of the schools from the elementary through the high school levels.

The stakeholders have not only supported the technology objectives, goals, and critical success factors outlined in this plan, but they have actively promoted the vision and strategy that has been in place.

The vision is to use appropriate classroom technology to continue the move to a collaborative, hands-on, constructivist curriculum and environment to which modern

pedagogical experts aspire. This plan describes the desired curriculum applications and required technology platform for each of the curriculum areas (e.g. math, English/language arts, science, art, social studies, etc.) at each of the three school levels. The plan recommends the training and competency goals necessary for students, teachers, and administrators to use technology effectively to develop, deliver, and maintain a curriculum that inspires excellence in teaching and learning.

Note the following priorities as you read the 2008-2012 plan:

1. Learning is paramount to:
 - assist each student to manage, manipulate, and analyze data/information;
 - assist student quests for knowledge;
 - stimulate and satisfy students' natural curiosity; and
 - make technology a natural part of the learning process, so that students may improve their personal productivity through continual and disciplined use of technological tools.

2. Effective learning requires teachers who are cognizant of and comfortable with the technologies they are expecting their students to learn and use- Continuous improvement through professional development in relevant technologies must guide the learning process. Continuous appraisals of what teachers need to know and what resources they must have to teach effectively is essential. Making professional development available in a timely and cost-effective manner is crucial to the integration of technology into the curriculum.

Applications of technology are necessary for the continuous improvement of ancillary and administrative operations ~ The application of current management software (student, data, and financial) will increase the effectiveness of administrative services to the students and parents and will increase the productivity of our employees.

This document provides not only the planning infrastructure for its own execution, but also provides the means for continuous evaluation of progress toward the stated goals. The Long-range Technology Planning Committee and the school-based Technology Council recommend that this five-year technology plan be reviewed and revised annually as implementation progresses. Since the speed of implementation over a five-year period cannot be predicted, the annual review of this implementation plan should take into consideration the actual state of the technology hardware, the curriculum, and the staff competency levels achieved each year, and any unanticipated changes in technology during the previous year. In addition, support personnel will need to be reviewed on an annual basis to ensure proper curriculum, maintenance, repair, and network operation functions are being met in a timely manner.

INTRODUCTION

This plan was developed for the Andover Public Schools by the school-based Technology Council and the Long-range Technology Planning Committee. The plan reflects research and the practical experiences of the stakeholders: students, teachers, parents, administrators, and the community.

The plan stipulates that technology can and should be integrated into the curriculum and employed with thoughtfulness and discipline. *However, the "thoughtful employment" of technology is not as easy as it might appear.* This plan does not begin with the attitude of "technology is the answer," but rather, with the attitude that we must take a rational, disciplined, and structured approach to technology. Questions need to be asked and answered, in order to determine the prior knowledge of students, teachers, staff, and other stakeholders.

This plan views technology as an essential tool for teaching and learning. To that end, if teachers are to thoughtfully employ technology with their students, then they need to be fully cognizant of the relevant, available technologies that will improve teaching and learning. Teachers also need to possess the technological knowledge that can then be transferred to their students through the educational process. This knowledge enables the building of lifelong skills that each of our students will need to survive, prosper, and grow over the next several decades.

To achieve this awareness and thus a full integration of technology into the K-12 curriculum, this plan includes the following goals and objectives:

- A continuous assessment of technological trends as they are apt to affect and be affected by the educational process in Andover
- Acquisition and integration of the most applicable technologies into the curriculum at all levels in the educational process, concentrating on the transfer of technology to the teachers and from them to the students
- Continuation of the positions of technology integration specialists in order to:
 - Serve as technology experts within their schools
 - Assist the classroom teachers to develop technological skills
 - Assist with the integration of technology into the curriculum
 - Assist with the implementation of new technology initiatives
 - the technologies essential for curriculum reform
 - the desired curriculum benchmarks
 - appropriate hardware, and software
 - professional development initiatives

- Continued communication between the Technology Curriculum Council and each of the discipline-specific Curriculum Councils (Science, Social Studies/History, Math, World Languages, Fine Arts, English/language arts, etc.) to determine areas in which appropriate technologies can facilitate curriculum integration/reform
- Continued purchasing and installing basic hardware necessary to provide equitable access to teachers and students throughout the district
- Selection of core software products which provide optimal support for meeting learning objectives
- Initiation of appropriate pilot programs with clearly-defined goals, objectives, and critical success factors (CSFs):
 - A studied approach to networking, including but not limited to wireless technology and telecommunications
 - A cost-effective, time-phased replacement of hardware and software with more current and appropriate technologies

Background

All members of our educational community are required to address increasingly complex issues related to students, curriculum, assessment, and resources. They need to access, interpret and communicate a proliferating body of information. The use of technology is vital to the efficient management of the information necessary for timely decision-making and effective problem-solving. Teachers and administrators need to be provided the methods, tools, and the techniques necessary to implement the integration of technology into the learning process. This plan identifies the way in which Andover will fulfill that need. The continuous monitoring and evaluation of performance against goals and objectives resulting in the on-going modification of the plan.

In the early 1980s, the Andover Public Schools and the Andover School Committee began technology planning. Equipment was purchased, put into the schools, and training of staff and students commenced. The superintendent directed that a technology plan be generated, and it was. As the plan progressed, it became more obvious that a commitment to technology was going to cost more than the monies available would allow. Sufficient funds to provide for maintenance and training, which needed to be done, could not be allocated within the existing budget. The schools had a moderate quantity of first generation PCs and Apple IIs, but these computers and printers were fast becoming outdated and were not being adequately supported. Equally important, very little training was taking place. At the same time, the school population was mushrooming and new school construction was obviously needed. Thus, by the early 1990s, all of the factors needed to motivate the community toward a sustained commitment to technology were in place.

As school construction was being considered, a team was formed to plan a technology component of

the construction. Three of the Town's eight schools were affected, and \$1.6 million dollars for technology was included in the cost of the renovation of these three schools. Then, to be fair to the other five schools, an additional sum of \$2.0 million dollars was allocated for those schools.

The objectives of the Andover Public Schools' technology planning process were to:

1. Develop and implement a five-year plan, which:
 - identifies the existing status of district technology;
 - establishes district priorities, a timeline for implementation, and a realistic fiscal plan;
 - provides a consistent system for ongoing evaluation and program improvement; and,
 - establishes a yearly review of new software, hardware, networking, and personnel needs.
2. Involve the school community in decision-making as the plan is developed and implemented;
3. Improve student learning through judicious planning for selection and implementation of appropriate technology software/hardware; and
4. Improve district, school, and classroom management.

School and Community Demographics

When the Town of Andover was incorporated on May 6, 1646, there were about 1500 residents. The Andover of today has a population of approximately 31,700. The history of Andover is rich in culture and tradition and has long been noted for the high quality of education offered to all students.

Andover is located 25 miles north of Boston and is easily accessible to Interstate Highways 495, 93, and 95, and to Routes 28 & 133. While Andover remains essentially a residential community, it has several large industrial parks and also a number of biotechnology and pharmaceutical companies. Andover is characterized as a typical New England town with wide, tree-lined streets and white steepled churches. It is also the home of Phillips Andover Academy, an internationally famous private secondary school.

The Public Schools of Andover, in fiscal year 2007, served 6001 students in pre-kindergarten through grade twelve with a professional and support staff of 849. Approximately 14.9% of the students are served through the special education department with needs ranging from mild learning disabilities to severe, multiple handicaps. In-house programs, services and contract agreements with other communities help provide appropriate learning environments for these students. Andover's free/reduced cost lunch programs serve approximately 201 students each day. Through the continued efforts of a highly professional faculty and a FY 07 appropriation of \$55,671,088 (funded through property tax assessments of \$11.40/\$1000 (residential) and \$17.95/\$1000 (commercial)), the public schools maintain a high quality educational program for the students of

Andover.

Bancroft, High Plain, Sanborn, South, and West Elementary constitute Andover's five K-5 elementary schools. Shawsheen, a K-2 primary school, is an open-enrollment school. All K-5 elementary schools are organized by teaching teams that work closely with Learning Specialists, Art, Music, Instructional Technology Specialists, Library/Media Specialists, Physical Education Specialists, Reading Specialists and Special Needs Teachers to plan and carry out instruction. Teaching strategies and curricula are based upon sound growth and development principles. Hands-on, process-oriented instruction using concrete materials is a major instructional strategy.

Andover also has three middle schools which serve 1,474 students. Doherty Middle School, West Middle School, and Wood Hill Middle School are organized by teaching teams, grades 6-8. These teams are responsible for providing a core academic program that promotes multiple literacies, critical thinking, and healthful lifestyles. Interdisciplinary units of instruction that integrate content and expressive arts are encouraged, as are hands-on exploration activities. The grade-level teams work closely with the Integrated Arts, Physical Education, and World Language teams to enrich these interdisciplinary units. The application of technology is promoted in all middle school programs.

Andover High School is an academically oriented high school serving 1,775 students. A total of 72 courses are offered in ten content/subject areas in grades 9 through 12. In addition to the core curriculum, team-taught and integrated courses are available in English/Social Studies, English/Art, and Social Studies/Fine Arts. Advanced placement courses are offered in English, Spanish, Modern European History, US History, Calculus, Physics, Chemistry, and Biology. Plans are underway to expand the offerings of AP courses in Computer Technology and Ecological Sciences.

Andover Public Schools have been involved in collaboration with scientific companies located in Andover: Digital, Eisai Research Institute, Hewlett-Packard, Genetics Institute, Picture Tel, Raytheon, Smith and Nephew, and Vicor. These companies have generously sponsored and funded student enrichment, staff development activities and technology equipment in the field of science and technology. The Stevens Foundation, a non-profit organization, has provided funding for Andover teachers to attend staff development programs sponsored by the Museum of Science. The Andover Fund for Education (AFE) is a partnership between the Andover community and the public schools as is the Andover Education Improvement Association (AEIA). The aim of these non-profit organizations is to solicit business, private, and community resources to provide support for school programs and activities.

In 1994, the Town of Andover overrode Proposition 2 1/2 to bond \$38,000,000 for a comprehensive facility expansion and renovation project for three of its eight school buildings. This bonding included an appropriation of \$1,600,000 for technology. The Town also appropriated an additional \$2,000,000 for the integration of technology into each of the five remaining, non-building project schools.

At the Year 2000 Town Meeting, the citizens of Andover voted to build a new middle school and a new elementary school. This included \$1.1 million for technology.

It is evident that the Town of Andover has provided for a strong technology and telecommunications foundation. This forward thinking will revolutionize the ways Andover students learn, work, play, and communicate. The plan provides the support necessary for Andover students to become productive members of a global workforce who are risk-takers, thinkers, and problem solvers.

Vision and Mission Statements

Technology will continue its growth and infusion into our daily lives. We must be prepared to understand its use, its possibilities, and the effects it will have on society and on individual privacy. The ethical application of technology has become increasingly important as our capabilities expand at exponential rates. Our children will have to address ethical issues of the most difficult and controversial kind. We must prepare them for this inevitability.

Students today come to school with some degree of technological skills. These skills are raw in most cases and need refinement. We find that our students need to learn how to harness the power of the computer and apply it to solving problems. Additionally, many students are finding that online learning stimulates and helps to focus them. Educators must take advantage of this energy and search for knowledge and use these wonderful tools to maximize our students' potential.

It is to that end that the Andover Public Schools Long-range Technology Planning Committee has endorsed the idea of a portable computer for every student. A computer for every student will provide the access to technology that is required in order that all students will become true power users. Andover Public Schools believe that consistent and constant access by the individual learner to the educational tools of their generation strengthens each learner's evolution as a critical thinker. It is important that no one is left behind. Every student must have equal access to computing tools both at school and at home. Online communication is also an absolute necessity for everyone. Online communications give everyone equal access to information. Access to information fuels knowledge.

Our Mission:

Our mission is to use technology to augment the school system's goals of providing the best education possible, improving student achievement, and preparing all students to capitalize on the opportunities they encounter.

We will achieve this by ensuring that all students are competent and experienced in using technology to:

- access, collect, authenticate, manage, and assess information;
- analyze and investigate alternatives and patterns;
- develop innovative solutions;
- express themselves creatively; and,
- communicate their ideas effectively

Our Vision:

We envision using technology to further a learning community where:

- Students take more responsibility for their own educational success and are enthusiastically engaged in problem solving, risk-taking, and hands-on learning.
- Teachers use technology in support of learning in an innovative, creative, and efficient manner. They function as coaches, mentors, advocates, and managers of information. They have the knowledge and skill to use technology to enhance the delivery of a challenging and inter-disciplinary curriculum, which addresses student specific needs, and learning styles.
- Technology is used effectively to allow more of the school system's financial and human resources to be focused on student education.
- Schools become an environment where students and teachers have ready access to software tools and applications, knowledgeable support staff, information, and external resources to further the curriculum goals.

Schools will have the capacity to be responsive to a dynamic, fluid, and global

Software

Software has become one of the most significant costs of the Technology program. The total cost of the ownership of software must be taken into account in the adoption process. The following criteria are recommended when looking to adopt a software package:

1. Curriculum implications
 - a. Local, state, federal guidelines
 - b. When to use
 - c. Group presentation or individual use
 - d. How much equipment will the teacher need to fully implement
 - i. Laptop lab
 - ii. Stationary computer lab
 - e. Assessment
2. Purchase price
3. Licensing
4. Compatibility with existing inventory of equipment
 - a. Ram memory requirements
 - b. Hard drive space required
 - c. Video card requirements
 - d. Does it require all of the computers to have the latest version of Flash and Shockwave
 - e. Network bandwidth overhead
5. Upgrade costs

6. Deployment
 - a. Computer by computer
 - b. Network, site, lab, individual license
 - c. System configuration
 - d. System security
 - e. Professional development
 - i. Who
 - ii. What
 - iii. Where
 - iv. When
 - v. How much will it cost?
 1. Stipends
 2. Substitutes
 3. Instructors
 4. Travel
 5. Housing
 6. Meals
 7. Annual new staff training

Licensing policies and procedures are being managed, and protocols are being put into place to manage the networked, site, lab, and single software license inventories district-wide. District-wide curriculum software acquisitions are approved through each subject area's curriculum council. The Andover Public Schools System complies with federal policies on copyright laws. Software piracy, improper or unauthorized software installation, including unauthorized software download from the Internet and usage on district-owned computers and servers is not permitted.

Hardware

Computer and Audio-Visual technology are inventoried on an annual basis. Each piece of equipment is assigned an inventory control number that is attached to the hardware. In addition, the ICN is printed on the hardware. Once the physical count is completed, the Technology Director's office compares last year's inventory with the new one. A report is then generated for each school and distributed to each principal.

The Andover Public School System owns 2,328 networked desktop and laptop computers located in classrooms, computer labs, and office spaces.

All Pre-K to Grade 12 classrooms have at least one class one or class two computer and a networked laser printer installed and operational. All K-8 classroom teachers have been assigned a laptop computer. The High School Teachers are scheduled to receive a tablet laptop in the Fall of 2007. Our newest middle school, Wood Hill, has three mobile wireless laptop computer labs, each containing 30 wireless laptop computers. In addition, our newest elementary school, High Plain, also has three mobile wireless laptop computer computers labs. One mobile lab has been assigned to each grade level from grade three to eight.

Our two other middle schools Doherty and West currently have two mobile wireless computer labs each. Each of these schools has recently had its six year old mobile labs upgraded to new HP 6320 laptops. Each of these schools also have a five year old Toshiba 1800 mobile lab. The upgrading of the Toshiba labs and the addition of one more lab for each school is currently budget.

The remaining four K-5 Elementary Schools each have a mobile wireless laptop lab that are slated for upgrades in the FY08 budget with the addition of two more mobile wireless labs for each school.

Depending upon funding, it is our goal to have one mobile wireless laptop lab for grade level three through 8 for a total of 24 mobile wireless computer labs.

Curriculum status.

The goals and objectives of the Andover Public Schools' curriculum is to integrate the application of the technology tools and skills into the general curriculum to enhance the educational learning environment and provide technological tools and skills similar to those the student encounter as they progress through their life. The basic technology guidelines will align with the Massachusetts Recommended Technology Guidelines by:

- Advancing student learning and academic achievement;
- Preparing students for the world of work;
- Promoting the skill, knowledge, and performance of teachers and administrators as defined by the professional development standards, and
- Improving the effectiveness of class and school management.

Decisions regarding technology goals and initiatives are linked to the following Guiding Principles of the Curriculum Frameworks:

1. All students are held to high expectations and standards;
2. Students learn by using a variety of strategies and approaches;

3. Students investigate how knowledge has purpose and meaning in their lives;
4. Purposeful interaction is a vital ingredient for student learning;
5. Curriculum is based on inquiry, authentication, problem solving, discovery, application and evaluation of key issues and concepts;
6. Assessment is a process and a tool to improve instruction and enhance student learning;
7. Curriculum points to the connections within and across disciplines and
8. Technology provides important indispensable tools for enriching the learning process.

Over the past five years the Andover Public School System has worked diligently to align its curriculum with the Massachusetts Curriculum Frameworks. All curriculum councils have worked to develop system-wide curriculum benchmarks that dovetail with the state curriculum frameworks. The level of technology infusion throughout the district has been extensive. Each curriculum council has identified technology as an important component to the educational process. The Internet has become an indispensable tool to the students and teachers.

During this time, the technology council has developed technology competencies for each grade level. The Technology Competencies provide a logical progression for the introduction of technological skills to Andover students for grades K-8.

The Technology Competencies were introduced to our teachers and, as they worked to assimilate them into their classroom activities, it became clear that our staff was not confident enough with their technological knowledge and skills. The teachers needed a colleague with a high level of technological skills to assist with the implementation and integration of technology in the classroom. This person needed to be a fellow classroom teacher with the knowledge, energy, and finesse necessary to assist their classroom colleagues. The resource person would support the classroom teachers and help them to integrate technology skills into a dynamic curriculum, a curriculum that, at the time, was changing to conform to the state initiatives. Upon request by the Superintendent, the school committee authorized the hiring of 4.5 FTE Instructional Technology Specialists. The primary goals of the Instructional Technology Specialists are to:

- serve as the technology expert and resource person within their schools
- assist the classroom teachers to develop technological skills

- assist with the integration of technology into the curriculum
- Assist with the implementation of new technology initiatives

Next, the technology council began to evaluate technology instructional materials available commercially. The main criteria for the materials was that they must conform to the Andover Technology Competencies. *TechWorks* was selected.

TechWorks is a program that helps teachers develop the skills to integrate technology into the curriculum for Grades K-8. It is a comprehensive program, which introduces technology skills at appropriate grade levels while linking them with other skills and concepts being taught. Every classroom, K-5, has the appropriate *TechWorks* leveled kit. Each kit contains: **The Scope and Sequence**

The detailed resource includes objectives for the 14 technology concepts. It identifies the specific grade levels at which each concept should be introduced, mastered, and extended.

Management Strategies and Assessment Rubrics

Practical management tips, a record keeping system, and assessment guidelines help teachers use the program with ease and confidence.

The Curriculum Matrix

The activity on each Curriculum Connection Card is linked to one or more areas of the curriculum: language arts, social studies, math, science, fine arts, and critical thinking.

Parent Involvement Materials

These helpful materials include sample letters to parents, sample forms for promoting parental support, and ideas for newsletters, displays, and workshops.

Teacher Training Video

Three different tapes are available: one for Kindergarten-Level 3, one for Levels 4-6, and one for Levels 7-8. Each tape provides an overview of the program and demonstrations of a technology lesson being presented to an entire class, to a small group, and to individual students working in a computer lab.

Resource CD

Files for reproducible materials, such as parent letters, can be printed as they are or customized.

A majority of students are coming to school with raw technological skills. These skills need to be refined to the point that every student can properly access, collect, authenticate, manage, and assess information. In today's world, all of us have at our fingertips an enormous amount of raw data. It is crucial that we be able to manage that voluminous data and that we teach our students to do the

same. To that end, we must teach our students to:

1. Ask the proper question(s);
2. Access information;
3. Analyze and authenticate information;
4. Apply information, and
5. Assess the results.

The Andover Public School System has focused its energies over the years on providing access to computer equipment. We have installed and activated LANs and WANs, trained our teachers to use technology for professional and classroom management, set up support systems for technology, and engaged in the process of implementing and integrating technology into the classroom and the curriculum. We must now refine our approach so that our students are learning how to effectively use and apply the technology tools to solve problems, accomplish tasks, and function in a world that is ever changing, especially in technology.

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Recommended Staffing

Over the past five years the Andover Public School System has fulfilled its responsibility to provide adequate support staff to operate, maintain, and repair technology equipment. As the inventory of equipment increases to match enrollment growth, the support staff will have to be expanded to meet the challenge of maintaining the technology. As technology capabilities change the technology department too must be able to change to meet the classroom and administrative needs of the school district.

Curriculum Goals:

1. Annually review & update elementary, middle school, and high school Technology Competencies.
2. Work cooperatively with school administration and teachers to review technology implementation and integration into the various curricula areas.
3. Continue to develop the Andover Public Schools web site and portal to support school, student, parent, and community needs.

Professional Development Goals:

1. Offer professional development courses within the Professional Development Committee organizational structure.
2. Work with Professional Development Committee to identify online service providers to provide MS Office courses that will meet the requirements of the committee.
3. Assist the Math, Social Studies, English/Language Arts, & Science to integrate technology components into their professional development offerings.

E-Rate

Application for e-rate reimbursement will be made each year that the program remains in effect. Andover Public Schools will apply for E-Rate funding for eligible telecommunication services and Internet access.

PROPOSED BUDGET
Andover Public Schools
Technology Capital Improvement Plan
FY08 – FY12

Line #	Fiscal Year >				FY2008	FY2009	FY2010	FY2011	FY2012
1	Calendar Year >	Qty	Item Cost	Finance d	07-08	08-09	09-10	10-11	11-12
2	Proposed Budget >			Amount	450,054	481,738	654,330	665,510	669,141
3	Central Office Main Distribution Facility								
4	Electrical Circuitry Upgrade	1	30,000		30,000				
5	Technology Vehicle	1	20,000		20,000	20,000		20,000	20,000
6	Vocie IP (Lease)	1	25,000	88,600	25,000	25,000	25,000	25,000	25,000
7	PDC	1	7,376	7,376	2,112	2,112	2,112	2,112	2,112
8	TFTP	1	7,376	7,376	2,112	2,112	2,112	2,112	2,112
9	APSMail1	1	7,376	7,376	2,112	2,112	2,112	2,112	2,112
10	Gatekeeper	1	7,376	7,376	2,112	2,112	2,112	2,112	2,112
11	WebServer	1	7,376	7,376	2,112	2,112	2,112	2,112	2,112
12	Proxy	2	7,376	14,752					4,158
13	Sharepoint	1	7,376	7,376					2,112
14	Ardence Phase 1	200	90		18,000				
15	Ardence Phase 2	200	90			18,000			
16	Ardence Phase 3	200	90				18,000		
17	Ardence Phase 4	200	90					18,000	
18	Ardence Phase 5	200	90						18,000
19	Laser Printer Replacement (30)	30	90				2,700		
20	MDF Servers equipment replacement	4	7,376	29,504				8,315	8,315
21	ANTIVIRUS	###	5		11,000	11,000	11,000	11,000	11,000
22	ARCSERV	35	100		3,500	3,500	3,500	3,500	3,500
23	Equipment Contingency	1	5,000		5,000	5,000	5,000	5,000	5,000
24	10/100/1000 Switches	5	2,000		10,000	10,000	10,000	10,000	10,000
25	Firewall	1							20,000
26	Microsoft Software								
27	Server	16	100			1,600			
28	Exchange	1	1,200				1,200		
29	SMS	1	1,500					1,500	
30	WebServer	1	1,000		1,000				
31	Office Professional	500	50		25,000	25,000	25,000	25,000	25,000
32	Backup	1	10,000		10,000	10,000	10,000	10,000	10,000
33	APC UPSs	2	1,500		3,000	3,000	3,000	3,000	3,000
34	VPN Solution	1	20,000	20,000					5,637
35	Ghost	100	50		5,000	5,000	5,000	5,000	5,000
36									
37	HIGH SCHOOL								
38	AHS-S - Server upgrade	3	7,376	22,128	6,336	6,336	6,336	6,336	6,336
39	AHS-A - Server upgrade	1	7,376	7,376	2,112	2,112	2,112	2,112	2,112
40	AHS SOC ST LAB	30	750	22,500					8,214
41	AHS RM112	25	750	18,750			6,845	6,845	6,845
42	AHS RM121	25	750	18,750			6,845	6,845	6,845
43	AHS MATH LAB	30	750	22,500				8,214	8,214
44	AHS Science	60	750	45,000			16,428	16,428	16,428
45	AHS Eng Lab RM269	30	750	22,500					8,214
46	Library Computer Lab	30	750	22,500					8,214
47	Classroom computers (54)	54	750	40,500					14,786
48	Teacher laptop (Lease)	120	1,500	180,000	58,920	58,920	58,920		
49	Classroom Printers	54	300	16,200					16,200
50									
51	DOHERTY MIDDLE								
52	DMS-S	1	7,376	7,376	2,112	2,112	2,112	2,112	2,112
53	DMS-A	1	7,376	7,376	2,112	2,112	2,112	2,112	2,112
54	Replace Moblile Lab A								13,690
55	Replace Moblile Laptop Lab B & C (Toshiba1750)	60	1,250	75,000	29,460	29,460	29,460		
56	Desktop Computer Lab (30)	30	750	22,500					8,214

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57	Classroom computers (46)	46	750		34,500				
58	DMS 5 yr. old HP6120 (10)	10	1,250	12,500					4,564
59	Classroom Printers	46	300	13,800					13,800
60									
61	WEST MIDDLE								
62	WMS-S	1	7,376		2,112	2,112	2,112	2,112	2,112
63	WMS-A	1	7,376		2,112	2,112	2,112	2,112	2,112
64	Replace Moblile Lab A	30	1,250	37,500					13,690
65	Moblile Laptop Lab B & C (toshiba 1750) Lease	60	1,250		29,460	29,460	29,460		
66	Desktop Computer Lab (30)	30	750	22,500					8,214
66	Desktop Classroom (40)	40	750		30,000				
67	WMS 5 yr old HP6120 laptop (10)	10	1,250						4,564
68	Classroom Printers	40	300					12,000	
69	WOOD HILL								
70	WHM-S	1	7,376	7,376	2,112	2,112	2,112	2,112	2,112
71	WHM-A	1	7,376	7,376	2,112	2,112	2,112	2,112	2,112
72	Classroom Computers (110)	70	750	52,500			19,166	19,166	19,166
73	Teacher Laptops (49)	49	1,250				22,361	22,361	22,361
74	Mobile Lab A, B, & C (90) Lease	90	1,250	112,500			41,070	41,070	41,070
75	Classroom Printers	50	300					15,000	
76									
77	BANCROFT								
78	BAN1	1	7,376	7,376	2,112	2,112	2,112	2,112	2,112
79	BANAdmn1	1	7,376	7,376	2,112	2,112	2,112	2,112	2,112
80	Mobile Lab A (Replace 7 yr old 1750 lab) (30)	30	1,250	37,500	14,730	14,730	14,730		
81	Mobile Lab B (add 4th grade lab)	1	43,000	43,000		15,698	15,698	15,698	
82	Moblile Laptop Lab C (3rd Grade)	1	43,000	43,000		15,698	15,698	15,698	
83	BAN Desktop Computer Lab	30	750					8,214	8,214
84	Classroom Computers	34	750					9,310	9,310
85	Classroom Printer	34	300						10,200
86	Teacher Laptops (44)								
87									
88	HIGH PLAIN								
89	HPE-S	1	7,376	7,376	2,112	2,112	2,112	2,112	2,112
90	HPE_A	1	7,376	7,376	2,112	2,112	2,112	2,112	2,112
91	Classroom Computers (75)	60	750	45,000			16,428	16,428	16,428
92	Teacher Laptops (44)	44	1,250	55,000			20,079	20,079	20,079
93	Mobile Lab A, B, & C (90) Lease	90	1,250	112,500			41,070	41,070	41,070
94	Classroom Printers	35	300					10,500	
95									
96	SANBORN								
97	SAN-S	1	7,376	7,376	2,112	2,112	2,112	2,112	2,112
98	SAN-A	1	7,376	7,376	2,112	2,112	2,112	2,112	2,112
99	Mobile Lab A (30)	30	1,250	37,500	14,730	14,730	14,730		
100	Mobile Lab B (add 4th grade lab)	1	43,000	43,000		15,698	15,698	15,698	
101	Moblile Laptop Lab C (3rd Grade)	1	43,000	43,000		15,698	15,698	15,698	
102	SAN Desktop Computer Lab (30)	30	1,250	37,500				13,690	13,690
103	Classroom Computers, Desktop	23	750	17,250				6,298	6,298
104	Classroom Printers	23	300					6,900	
105									
106	SHAWSHEEN								
107	SHA-S	1	7,376	7,376	2,112	2,112	2,112	2,112	2,112
108	SHA-A	1	7,376	7,376	2,112	2,112	2,112	2,112	2,112
109	SHA classroom computers (14)	14	750	10,500				3,834	3,834
110	SHA classroom printers (14)	14	300					4,200	
111									
112	SOUTH								
113	SOU-S	1	7,376	7,376	2,112	2,112	2,112	2,112	2,112
114	SOU-A	1	7,376	7,376	2,112	2,112	2,112	2,112	2,112
115	Replace mobile lab A	30	1,250	37,500					13,690
116	Mobile Lab B (add 4th grade lab)	1	43,000	43,000		15,698	15,698	15,698	
117	Moblile Laptop Lab C (3rd Grade)	1	43,000	43,000		15,698	15,698	15,698	
118	Computer lab, Desktop	30	750	22,500				8,214	8,214
119	Classroom desktop computers	27	750	20,250				7,393	7,393
120	Teacher Laptops (10)	10	1,250	12,500					4,564

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121	Classroom Printers	27	300						8,100	
122										
123	West Elem.									
124	WEL_S	1	7,376	7,376	2,112	2,112	2,112	2,112	2,112	2,112
125	WEL-A	1	7,376	7,376	2,112	2,112	2,112	2,112	2,112	2,112
126	Replace mobile lab A	30	1,250	37,500	14,730	14,730	14,730			13,690
126	Mobile Lab B (add 4th grade lab)	1	43,000	43,000		15,698	15,698	15,698		
127	Moblile Laptop Lab C (3rd Grade)	1	43,000	43,000		15,698	15,698	15,698		
128	Computer Lab, desktops	30	750	22,500				8,214	8,214	
129	Classroom computers, Desktops	30	750	22,500				8,214	8,214	
130	Classroom Printers	30	300					9,000		
131										
132					450,054	481,738	654,330	665,510	669,141	
133					FY08	FY09	FY10	FY11	FY12	
134										
135	Purchases				206,000	112,100	94,400	177,700	170,700	
136	Telephone Lease				25,000	25,000	25,000	25,000	25,000	
137	Lse fY08-3yr - Computer				162,030	162,030	162,030			
138	Lse FY08-4yr - Server				57,024	57,024	57,024	57,024		
139	Lse FY09					125,584	125,584	125,584		
140	Lse FY10						190,292	190,292	190,292	
141	Lse FY11- Computer							81,595	81,595	
142	Lse FY11- Server							8,315	8,315	
143	Lse FY12- Computer								124,308	
144	Lse FY12 - Server								68,931	
145	Total Proposed CIP				450,054	481,738	654,330	665,510	669,141	
146										
147	Total purchases by Lease				244,054	369,638	559,930	487,810	473,441	